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Department of Toxic Substances Control

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December 21, 2004

Mr. Thomas L. Macchiarella
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San Diego, CA 92132-5190

REVISED DRAFT SOIL FEASIBILITY STUDY REPORT, IR SITE 25, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Dear Mr. Macchiarella:

The Department of Toxic Substances Control (DTSC) has reviewed the above referenced document dated August 13, 2004. Attached are our comments. Please contact me at 510-540-3767 or mliao@dtsc.ca.gov if you have any questions.

Sincerely,

Marcia Liao
Remedial Project Manager
Office of Military Facilities

Enclosure

Mr. Thomas Macchiarella

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Cc (via US Mail and email):

Ms. Anna-Marie Cook
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DTSC COMMENTS
REVISED DRAFT SOIL FEASIBILITY STUDY REPORT
OPERABLE UNIT 5, ALAMEDA POINT
ALAMEDA, CALIFORNIA

Presentation of Risk Calculations

1. Please combine the cumulative risks from both soil and groundwater media. Remedy cannot be selected until the risks are combined.
2. While the 0-2 ft exposure point concentration (EPC) at Decision Area 1 (DA1) is reported to be 0.477 mg/kg of BaP equivalent -- which is lower than the screening level of 0.62 mg/kg, the EPC for 0-0.5 ft at the same area (i.e. DA 1) is 1.041 mg/kg -- which is greater than 1.0 mg/kg, the maximum of polynuclear aromatic hydrocarbons (PAHs) to be allowed in the soil. A similar situation also occurs at DA 3.

Since the EPC is based on 95 percent upper confidence level (UCL) while the action levels DTSC has agreed to -- an average of 0.62 mg/kg with a ceiling of 1 mg/kg of BaP equivalent -- are based on the average and maximum concentrations, it would be helpful if the Feasibility Study (FS) also reports the average and maximum BaP equivalent at 0-0.5 ft if no excavation is to be contemplated at the said decision area.

3. In addition to the integrated vertical profile (i.e. 0-2, 0-4 and 0-8 ft) presented in Tables 1-2 through 1-4, we recommend that the FS presents the PAH risk profile in discrete intervals (e.g. 0-0.5 ft, 0.5-2 ft, 2-4 ft, 4-6 ft, 6-8 ft) to facilitate the selection of depth for excavation,
4. The BaP equivalent concentrations for DAs 1, 2, 3, and 6 reported in Table 1-2 and Table 1-4 are not the same. Please reconcile the discrepancy.
5. In Tables 1-3 and 1-4, the cumulative risk from metals is reported as 3E-05 for areas underwent removal action (i.e. DAs 4, 5, and 7, and Parcels 182 and 183) which is higher than that for areas that did not go through the removal (i.e. Areas 1, 2, 3 and 6). This does not appear to be reasonable.
6. The footnotes of Tables 1-3 and 1-4 provide conflicting information concerning the ingestion of vegetables. It is our understanding that the ingestion of homegrown produce is considered a complete exposure pathway and should therefore be evaluated.

Soil Excavation

Vertically

7. DTSC does not consider the excavation of PAH-impacted soil from 0 to 2 feet below ground surface (bgs), followed by placement of 2 feet of clean backfill and institutional control (IC) restricting digging below the 2 ft depth, is sufficiently protective of human health should the land use remain residential. Such an alternative cannot be considered the final remedy.
8. DTSC concurs with the USEPA that excavation to the same depth across the entire site may not be necessary. We believe the ultimate reuse of the site and the enforceability of institutional control (IC) should be thoroughly considered when the depth of excavation is decided. It is our opinion that:
 - Generally, sensitive land use such as residential homes, schools, health care facilities, and daycare centers requires excavation to a deeper level as opposed to non-sensitive uses such as commercial or recreational facilities.
 - IC with restrictions on digging below certain depth is difficult to enforce on single family homes as opposed to high-density housing complexes or commercial spaces managed by a single institutional entity.
 - IC can be constructed in a manner that prescribes certain details of the future site development plan such as excavation under existing buildings/structures.
 - DTSC is willing to consider an alternative that involves 2 feet excavation in non-residential areas and 4 ft clean up in residential areas with Institutional Controls (ICs) restricting digging below the 4 feet depth and below all existing structures.
 - The PAH concentrations at Parcels 182 (Estuary Park) and 183 should be presented in this FS. Please show them in discrete depth intervals (e.g. 0-0.5 ft, 0.5-2 ft, 2-4 ft, and 4-8 ft) and include them in Figures 1-15 through 1-18.

Laterally

9. Approximately 40 percent of OU-5 is reportedly beneath buildings, structures or hardscape. DTSC believes that buildings and fixed covered carports can be considered a form of containment (“cap”) and therefore part of the remedy. Such an assertion, undoubtedly, must be technically justified in the FS.
10. Unlike buildings and structures, hardscape is much more transient and could become disturbed rather easily resulting in unacceptable exposure to residents and workers. DTSC believes that a no-digging IC alone is not sufficiently protective and that hardscape areas must be treated same as the adjacent areas.

11. Given that the Coast Guard, the current tenant of OU-5, plans to redevelop the site in the near future, the FS should discuss the requirements to remove existing structures particularly in terms of excavation under them. These requirements should be adopted in the Record of Decision (ROD). Any action post ROD to remove the existing buildings or structures (“cap”) must include application of the adopted excavation requirement.

Indoor Vapor Intrusion

12. The projected time to remediate the groundwater at OU-5 is seven years. Given the elevated levels of groundwater contamination, the shallow groundwater depth, the detects of high soil gas at the Annex site east of OU-5, and the inherent uncertainty of vapor intrusion modeling, DTSC strongly recommends that periodic monitoring of indoor air be conducted at the subject site till the remedial action objectives (RAOs) for the groundwater is achieved – Maximum contaminant Levels (MCLs) in this case. The monitoring plan should be subject to agency and community review before being implemented.

Land Use Control

13. DTSC concurs with the USEPA on the land use control (LUC) comments and offers the following additional comments:
 - LUC must be in compliance with 22 CCR 67391.1.
 - Implementation and enforcement of the LUC must be outlined in the FS and detailed in the ROD. Elements such as Soil Management Plan and designation of a single property manager for all housing units must be clearly spelled out.
 - Costs associated with the implementation and enforcement must be fully accounted for in the FS and the paying parties (e.g., the Navy, the City or the Coast Guard) must be identified in the ROD or a legally binding side agreement.

Cost Estimates

14. Please provide detailed costing information in the draft final FS to allow independent verification of the estimates reported for various remedial alternatives. Costs of implementing and enforcing ICs as well as ongoing regulatory oversight costs must be included.

Detailed Analysis

15. DTSC finds it unacceptable that the FS contains no detailed analysis for remedial alternatives requiring excavation deeper than 2 ft. Please revise the FS and provide the detailed analysis as appropriate.